

## ABSTRACT

A queuing system wherein at least one input/output (I/O) interface having an outbound queue. A plurality of processing units is coupled to the at least one I/O interface. Each one of the processing units is coupled to a corresponding processing unit memory.

5 Each one of the processing unit memories has an inbound queue for such coupled processing unit. The at least one I/O interface outbound queue stores outbound information being returned to the I/O interface after being processed by one of the processing units. The I/O interface creates queue indices for storage in the inbound queues of the processor unit memories. The I/O interface includes a translation table, such table storing at a location a  
10 producer index for the plurality of processing units and a consumer index for such plurality of processing units.